

What is claimed is:

1. A coil used in an inductive charging paddle, wherein a core is located in the paddle, and an electric wire is wound about the core to form the coil, and wherein the coil is connected to a power source through a cable, the electric wire comprising:

a core wire; and

a plurality of insulating members for multi-coating the core wire.

2. The coil according to claim 1, wherein the insulating members include at least a first insulating member, which directly coats the core wire, and a second insulating member, which coats the first insulating member, wherein a space is provided between the first insulating member and the second insulating member.

3. The coil according to claim 1, wherein the insulating members include a first insulating member, which is made of heat-shrinkable material and directly coats the core wire, and wherein the first insulating member is heat shrunk for holding the core wire.

4. The coil according to claim 3, wherein the core wire is a litz wire, which is made of bundles of strands.

5. The coil according to claim 3, wherein the insulating members include a second insulating member, which coats the first insulating member, wherein a space is provided between the first insulating member and the second insulating member.

6. The coil according to claim 1, wherein the coil is accommodated in a case of the paddle, wherein the case

includes a positioner for determining the position of the electric wire that is wound about the core.

7. The coil according to claim 1, wherein each insulating member is a tube, which coats substantially the entire length of the core wire.

8. The coil according to claim 1, wherein the electric wire is wound a plurality of times to form windings and the windings are generally radially arranged.

9. The coil according to claim 1, wherein the core wire is one of a pair of core wires, wherein the insulating members include a pair of first insulating members, each of which coats one of the core wires, and a single second insulating member, which coats both of the first insulating members.

10. The coil according to claim 9, wherein the core wires extend parallel to each other such that the electric wire is flat.

11. The coil according to claim 10, wherein the electric wire is wound three times to form three windings, wherein two of the windings are arranged to form two layers in the axial direction of the coil, and the remaining one of the windings is located around the two windings, wherein the portion of the electric wire that forms the two windings lies horizontally with respect to a plane perpendicular to the axis of the coil, and the portion of the electric wire that forms the outer winding lies vertically with respect to the plane.

12. A coil used in an inductive charging paddle, wherein a core is located in the paddle, and an electric wire is wound about the core to form the coil, and wherein the coil is

connected to a power source through a cable, the electric wire comprising:

a litz wire, which is made of bundles of strands;

5 a first insulating tube, which coats substantially the entire length of the litz wire; and

a second insulating tube, which coats substantially the entire length of the first insulating tube.

10 13. The coil according to claim 12, wherein a space is provided between the first insulating tube and the second insulating tube.

14. The coil according to claim 12, wherein the first insulating tube is made of a heat-shrinkable material, and
15 wherein the first insulating tube is heat shrunk for holding the litz wire.

15. The coil according to claim 12, wherein the coil is accommodated in a case of the paddle, wherein the case
20 includes a positioner for determining the position of the electric wire that is wound about the core.

16. A coil used in an inductive charging paddle, wherein a core is located in the paddle, and an electric wire is wound
25 about the core to form the coil, and wherein the coil is connected to a power source through a cable, the electric wire comprising:

a pair of parallel litz wires, wherein each litz wire is made of bundles of strands;

30 a pair of first insulating tube, wherein each first insulating tube coats substantially the entire length of one of the litz wires; and

a single second insulating tube, which coats substantially the entire length of both of the first

insulating tubes.

17. The coil according to claim 16, wherein the electric wire is flat, and the electric wire is wound three times to form three windings, wherein two of the windings are arranged to form two layers in the axial direction of the coil, and the remaining one of the windings is located around the two windings, wherein the portion of the electric wire that forms the two windings lies horizontally with respect to a plane perpendicular to the axis of the coil, and the portion of the electric wire that forms the outer winding lies vertically with respect to the plane.

18. An inductive charging paddle comprising:

a core; and

an electric wire, which is wound about the core to form a coil, wherein the coil is connected to a power source through a cable, and the electric wire includes:

a core wire;

a first insulating member, which coats the core wire; and

a second insulating member, which coats the first insulating member.